

## IN THE CLAIMS

*This listing of claims will replace all prior versions and listings of claims in the application.*

### Listing of Claims:

1 - 5. (Cancelled)

6. (Original) An infrared detector that detects an amount of received infrared light using a thermal resistor, wherein the thermal resistor is composed of  $\text{LaTiO}_3$  having a perovskite structure in which a part of La is replaced with an alkaline earth metal.

7 - 8. (Cancelled)

9. (Currently Amended) ~~The infrared detector of Claim 7~~ An infrared detector that detects an amount of received infrared light using a thermal resistor, wherein

the thermal resistor is composed of  $\text{RNiO}_3$  having a perovskite structure in which a part of R is replaced with an alkaline earth metal, where R is an yttrium or a rare earth metal.

10 - 13. (Cancelled)

14. (Currently Amended) ~~The infrared detector of Claim 13 further comprising~~ An infrared detector comprising:

a thermal resistor composed of a metal oxide having a perovskite structure;

a stress applying unit operable to apply a stress to the thermal resistor;

a detecting unit operable to, in a state where the stress is being applied to the thermal resistor by the stress applying unit, detect an amount of received infrared light using the thermal resistor; and

a changing unit operable to cause the stress applying unit to change an intensity of the stress.

15. (Currently Amended) An infrared detector comprising:

a thermal resistor composed of a metal oxide having a perovskite structure;

an electric field applying unit operable to apply an electric field to the thermal resistor, the electric field applying unit and the thermal resistor sandwiching an insulator;  
and

a detecting unit operable to, in a state where the electric field is being applied to the thermal resistor by the electric field applying unit, detect an amount of received infrared light using the thermal resistor.

16. (Original) The infrared detector of Claim 15 further comprising

a changing unit operable to cause the electric field applying unit to change an intensity of the electric field.

17. (Original) An infrared detector that detects an amount of received infrared light using a thermal resistor, wherein

the thermal resistor is composed of  $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$  having a perovskite structure, to which a metal oxide having a perovskite structure is added, the metal oxide including at least one of a

rare earth metal excepting Pr and an alkaline earth metal excepting Ca.

18. (Original) The infrared detector of Claim 17, wherein oxide, a titanium oxide, an aluminum oxide, a gallium oxide, and a cobalt oxide.